=> d his

(FILE 'HOME' ENTERED AT 17:04:24 ON 12 DEC 2002)

FILE 'REGISTRY' ENTERED AT 17:04:29 ON 12 DEC 2002

L1STRUCTURE UPLOADED

0 S L1 SSS SAM L2

902 S L1 SSS FUL L3

FILE 'CAPLUS' ENTERED AT 17:06:45 ON 12 DEC 2002

224 S L3 L4

131645 S HERBICID? OR AGRIC? OR AGRONOM? L5

Lб 11 S L4 AND L5

FILE 'CAOLD' ENTERED AT 17:10:02 ON 12 DEC 2002

'=> s 13

L7 0 L3

=> log y

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION 197.15 FULL ESTIMATED COST 0.38

SINCE FILE TOTAL DISCOUNT AMOUNTS" (FOR QUALIFYING ACCOUNTS)

ENTRY SESSION

0.00 -6.82CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 17:10:32 ON 12 DEC 2002

- L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS
- AN 1995:665000 CAPLUS
- DN 123:55906
- TI Picolinic acid derivatives and their herbicidal compositions
- IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa, Shigehiko; Hanai, Ryo
- PA Kumiai Chemical Industry Co., Ltd., Japan; Ihara Chemical Industry Co., Ltd.
- SO U.S., 19 pp. Cont.-in-part of U.S. Ser. No. 842,163, abandoned. CODEN: USXXAM
- DT Patent
- LA English
- FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 5391537	Α	19950221	US 1992-960844	19921014
	US 5403816	Α	19950404	US 1993-48516	19930420
PRAI	JP 1990-288180	Α	19901025		
	US 1992-842163	B2	19920331		
	JP 1992-129376	Α	19920423		
	US 1992-960844	A2	19921014		
	·				

- OS MARPAT 123:55906
- AB The present invention is to provide a novel picolinic acid deriv. having the formula I or a salt thereof wherein R is a hydrogen atom, a (C1-C4) alkyl group, a (C2-C4) alkenyl group, a (C2-C4) alkynyl group, a benzyl group, a halogen-substituted (C1-C4) alkyl group, a cyano (C1-C4)alkyl group, a (C1-C4) alkoxy (C1-C4) alkyl group, a (C1-C4) alkoxycarbonyloxy (C1-C4) alkyl group, a (C1-C4) alkyl group, a cyclo (C4-C7) alkylcarbonyloxy (C1-C4) alkyl group, a cyclo (C3-C6) alkyl (C1-C4) alkyl group, an alkali metal atom selected from the group consisting of sodium and potassium, an alkali earth metal atom or an org. amine cation selected from the group consisting of a (C1-C4) alkylamino and a di-(C1-C4) alkylamine; R1 and R2 are the same or different, and are a (C1-C4) alkyl group, a (C1-C4) alkoxy group, a halogen atom, a halogen-substituted (C1-C4) alkoxy group or a (C1-C4) alkylsulfonyl group; X = NR3R4 wherein R3, R4 are the same or different and are, e.g., H, C1-4 alkyl, Ph; Y = O, NR5 wherein R5 is a hydrogen atom or a formyl group; and n is 0 or 1; provided that when X is a hydrogen atom, Y is a group having the formula NCHO; a method for prepg. the same; and a herbicidal compn. contg. the same as an active ingredient. The picolinic acid deriv. or the salt thereof of the present invention achieves an excellent herbicidal effect at a low dosage, and is effective for controlling the growth of various weeds in a wide range. The picolinic acid deriv. or the salt thereof of the present invention can be applied to a paddy field, a cultivated field, a non-agricultural land and the like as a herbicidal compn. Thus, e.g., reaction of Me 6-(N,N-dimethylamino)-3-hydroxypicolinate with 4,6-dimethoxy-2methylsulfonylpyrimidine afforded Me 3-(4,6-dimethoxypyrimidin-2-yl)oxy-6-(N,N-dimethylamino)picolinate in 66% yield which showed at least 90% growth control of barnyardgrass, monochoria, and bulrush.
- IT 143941-12-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (herbicidal picolinic acid derivs.)

- RN 143941-12-2 CAPLUS
- CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)

```
L6
     ANSWER 5 OF 11 CAPLUS COPYRIGHT 2002 ACS
     1997:294598 CAPLUS
AN
     126:277476
DN
ΤI
     Preparation of pyrazole compounds as agrohorticultural fungicides
     Hagiwara, Kenji; Suzuki, Hiroshi; Takada, Mitsumasa; Iihama, Teruyuki;
IN
     Sano, Shinsuke; Shimoda, Susumu
PA
     Nippon Soda Co., Ltd., Japan; Hagiwara, Kenji; Suzuki, Hiroshi; Takada,
     Mitsumasa; Iihama, Teruyuki; Sano, Shinsuke; Shimoda, Susumu
SO
     PCT Int. Appl., 85 pp.
     CODEN: PIXXD2
DΤ
     Patent
     Japanese
LA
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                             APPLICATION NO. DATE
                       ____
                             _____
     WO 9711943
                       A1
                                             WO 1996-JP2776
PΙ
                              19970403
                                                                19960926
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             ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
              IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN
                                             AU 1996-70954 19960926
     AU 9670954
                       A1
                              19970417
PRAI JP 1995-271807
                              19950926
     JP 1996-31277
                              19960125
     JP 1996-157511
                              19960529
     WO 1996-JP2776
                              19960926
OS
     MARPAT 126:277476
AB
     The title compds. (I; R1 = C1-6 haloalkyl or alkoxycarbonyl, cyano, etc.;
     R2 = H, a metal atom, C1-6 alkyl or alkoxy, etc.; X = H, halo, NO2, C1-6
     alkyl, etc.; Ar = 2-pyridyl, 2-pyrazyl, 2-pyrimidyl, or 2-thiazolyl group,
     these groups being optionally substituted with halo, C1-6 alkyl, C1-6
     alkenyl, C1-6 alkynyl, C3-5 cycloalkyl, C1-6 alkoxy, C1-6 haloalkyl, etc.,
     excluding the case wherein R1 = CF3, Ar = 2-pyridyl, X = R2 = H) and salts
     thereof are prepd. I, having an excellent fungicidal activity, are useful
     for agriculture and horticulture. Thus, pyridine deriv. (II)
     was reacted with N2H4 in AcOH to give the title compd. (III). III at 200
     ppm showed > 75% fungicidal effect for Botrytis cinerea.
IT
     188918-62-9P 188918-63-0P 188918-64-1P
     188918-65-2P 188919-61-1P 188920-07-2P
     188920-09-4P 188920-18-5P 188920-27-6P
     188920-39-0P 188920-41-4P 188920-45-8P
     188920-51-6P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of pyrazole compds. as agrohorticultural fungicides)
RN
     188918-62-9 CAPLUS
     Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-
CN
     [(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)
```

RN 188918-63-0 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl]-3[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

RN 188918-64-1 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-ethynyl- (9CI) (CA INDEX NAME)

RN 188918-65-2 CAPLUS

CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)

RN 188919-61-1 CAPLUS

CN Pyridine, 5-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)

RN 188920-07-2 CAPLUS

CN Pyridine, 2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c} C = C - SiMe3 \\ HN \\ N \\ \end{array}$$

RN 188920-09-4 CAPIUS ---

CN Pyridine, 3-(chloroethynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)

RN 188920-18-5 CAPLUS

CN Pyridine, 3-(methoxyethynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-(9CI) (CA INDEX NAME)

RN 188920-27-6 CAPLUS

CN Pyridine, 3-(1-propynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI) (CA INDEX NAME)

RN 188920-39-0 CAPLUS

CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-, monomethanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 188918-65-2 CMF C11 H6 F3 N3

CM 2

CRN 75-75-2 CMF C H4 O3 S

RN 188920-41-4 CAPLUS

CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 188920-45-8 CAPLUS CN 2-Propyn-1-ol, 3-[2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]-3-pyridinyl]-(9CI) (CA INDEX NAME)

RN 188920-51-6 CAPLUS
CN Pyridine, 3-(bromoethynyl)-2-[5-(trifluoromethyl)-1H-pyrazol-3-yl]- (9CI)
(CA INDEX NAME)

```
L6
     ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN
     1999:64794 CAPLUS
     130:95555
DN
TI
     Preparation of 5-(2-pyridyl)-1,2,4-triazole compounds as
     agricultural and horticultural germicides
IN
     Hagiwara, Kenji; Aihara, Toshio; Tanigawa, Hisashi; Sano, Shinsuke;
     Shimoda, Susumu; Sano, Hiroshi
     Nippon Soda Co., Ltd., Japan
PA
SO
     PCT Int. Appl., 55 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     Japanese
FAN.CNT 1
                     KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
     -----
                            19990121
                                          WO 1998-JP3085 19980709
PΙ
     WO 9902518
                      A1
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             DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
             US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     A1 19990208 TO
                                         AU 1998-81278
                                                            19980709
     AU 9881278
PRAI JP 1997-202546
                            19970711
     JP 1997-285851
                            19971017
     WO 1998-JP3085
                            19980709
     CASREACT 130:95555; MARPAT 130:95555
OS
     Pyridyltriazole compds. of general formula (I) [wherein X is cyano, CHO,
AB
     halogeno, C1-6 haloalkyl, thiocarbamoyl, hydroxyiminomethyl, or C1-6
     alkoxyiminomethyl; Y is H, cyano, NO2, halo, C1-15 alkyl, C1-6 alkoxy,
     C1-6 haloalkyl, C2-6 alkenyl, C2-6 haloalkenyl, C2-6 alkynyl, di(C1-6
     alkyl)amino, C3-6 cycloalkyl, C3-6 cycloalkylmethyl, C1-6 alkylthio, C1-6
     alkylsulfinyl, C1-6 alkylsulfonyl, hydroxy-C1-6 alkyl, C1-6
     alkoxyiminomethyl, or C1-6 alkoxymethyleneamino; and R is hydrogen, C1-6
     alkylcarbonyl, C1-6 alkylcarbonyloxy-C1-4 alkyl, C1-6 alkoxy-C1-4 alkyl,
     C1-6 alkoxycarbonyl, C1-6 alkylsulfonyl, di(C1-6 alkyl)carbamoyl, di(C1-6
     alkyl)sulfamoyl, C7-12 aralkylcarbonyloxy-C1-4 alkyl, or optionally
     substituted benzoyl or benzoyloxy-C1-4 alkyl; n = 1-4] are prepd. by
     cyclocondensation of 2-cyanopyridines (II; Y, n = same as above) with
     N-(C1-6 haloalkylcarbonyl)hydrazine X1CONHNH2 (X1 = C1-6 haloalkyl). They
     are prepd. in an industrially advantageous manner and are safely and
     effectively used as agrochem. fungicides. Thus, 0.28 g 28% NaOMe in MeOH
     was added dropwise to a mixt. of 0.71 g 5-cyclopropyl-2-cyanopyridine,
     0.72 g N-(trifluoroacetyl) hydrazine hydrate, and 10 mL ethanol, refluxed
     for 1 h, and after distg. off the solvent, heated at 130.degree. overnight
     to give the title compd. (III). III at 200 ppm controlled .gtoreq.75%
     Venturia inaequalis in apple seedlings, Botrytis cinerea on cucumber
     seedlings, Plasmopara viticola on grape vine seedlings, and Erysiphe
     graminis f.sp. tritici on wheat seedlings.
     219508-41-5P 219508-45-9P 219508-69-7P
     219509-25-8P 219509-46-3P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of pyridyltriazole compds. by cyclocondensation of
        cyanopyridines with (haloalkylcarbonyl) hydrazine as
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agricultural and horticultural germicides)

RN 219508-41-5 CAPLUS

CN Pyridine, 3-ethynyl-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)

RN 219508-45-9 CAPLUS

CN Pyridine, 3-(1-propynyl)-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-(9CI) (CA INDEX NAME)

RN 219508-69-7 CAPLUS

CN Pyridine, 3,5-diethynyl-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-(9CI) (CA INDEX NAME)

RN 219509-25-8 CAPLUS

CN Pyridine, 5-ethynyl-3-methyl-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-(9CI) (CA INDEX NAME)

$$\stackrel{\text{Me}}{\underset{\text{F3C}}{\bigvee}} \stackrel{\text{N}}{\underset{\text{H}}{\bigvee}} \stackrel{\text{Me}}{\underset{\text{C}}{==}} \text{CH}$$

RN 219509-46-3 CAPLUS

CN Pyridine, 6-butyl-3-(1-propynyl)-2-[5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]- (9CI) (CA INDEX NAME)

IT 219509-69-0P 219509-70-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of pyridyltriazole compds. by cyclocondensation of cyanopyridines with (haloalkylcarbonyl) hydrazine as

agricultural and horticultural germicides)

RN 219509-69-0 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-3-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

OEt
$$C = C - SiMe_3$$
Me $-CH$
 N
 N
 N
 N
 N

RN 219509-70-3 CAPLUS

CN Pyridine, 2-[1-(1-ethoxyethyl)-5-(trifluoromethyl)-1H-1,2,4-triazol-3-yl]-3-ethynyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OEt} & \text{C} = \text{CH} \\ \text{Me-CH} & \text{N} & \text{N} \\ \\ \text{F3C} & \end{array}$$

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 17:16:44 ON 12 DEC 2002)

FILE 'REGISTRY' ENTERED AT 17:16:49 ON 12 DEC 2002

STRUCTURE UPLOADED L1

L2 26 S L1 SSS SAM

STRUCTURE UPLOADED r_3

L46 S L3 SSS SAM L5138 S L3 SSS FUL

FILE 'CAPLUS' ENTERED AT 17:21:02 ON 12 DEC 2002

L6 50 S L5

FILE 'CAOLD' ENTERED AT 17:22:01 ON 12 DEC 2002

=> s 15

0 L5 L7

=> log y

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.38 363.39

FULL ESTIMATED COST

DISCOUNT AMOUNTS" (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

ENTRY SESSION 0.00 -30.98 CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 17:22:13 ON 12 DEC 2002

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ANSWER 4 OF 11 CAPLUS COPYRIGHT 2002 ACS
L6
     1998:341557 CAPLUS
AN
     129:27898
DN
     Preparation of pyridylpyrazoles as herbicides
TΙ
IN
     Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf
     Novartis A.-G., Switz.; Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf
PA
     PCT Int. Appl., 181 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
                      KIND DATE
                                           APPLICATION NO. DATE
     PATENT NO.
PI
     WO 9821199
                      A2
                            19980522
                                           WO 1997-EP6243
                                                           19971110
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             KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
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         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
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             GN, ML, MR, NE, SN, TD, TG
     AU 9855514
                                           AU 1998-55514
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                            19980603
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     EP 941222 ---
                       A2 T99909T5
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     JP 2001503762
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                                           US 1999-297783
                                                             19990507
     US 6204221
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                                           KR 1999-704168
                                                             19990511
     KR 2000053201
                       Α
                            20000825
PRAI CH 1996-2797
                       Α
                            19961112
     WO 1997-EP6243
                       W
                            19971110
     MARPAT 129:27898
OS
AΒ
     Title compds. I (in which A = N, N:O; R = H, Cl, CH3, etc.; R1 = H, F, Cl,
     CHO, NO2, etc.; R2 = H, CH3, OCH3, OCH2CCH, etc.; R3 = H, CH3, alkyl, etc.
     R4 = OCF3, CF3, CN, SOCH3, COOH, etc.; R5 = C1, Br, CHO, etc.) as well as
     agrochem. tolerated salts and stereoisomers of these compds. are prepd.
     through carboxylation, rearrangement, esterification, etc. The
     formulation examples of emulsion, wettable powders, and granules of these
     compds. as herbicidal substances were described.
IT
     207994-44-3P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of pyridylpyrazoles as herbicides)
RN
     207994-44-3 CAPLUS
     2-Propyn-1-ol, 3-[3-chloro-6-[4-chloro-5-(difluoromethoxy)-1-methyl-1H-
CN
```

pyrazol-3-yl]-5-fluoro-2-pyridinyl]- (9CI) (CA INDEX NAME)

Me N C1
$$C=CH_2-OH$$

Page 12

```
ANSWER 19 OF 50 CAPLUS COPYRIGHT 2002 ACS
L6
AN
     1998:341557 CAPLUS
DN
     129:27898
ΤI
     Preparation of pyridylpyrazoles as herbicides
IN
     Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf
     Novartis A.-G., Switz.; Nebel, Kurt; Brunner, Hans-Georg; Schurter, Rolf
PA
SO
     PCT Int. Appl., 181 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LА
FAN.CNT 1
                                           APPLICATION NO.
     PATENT NO.
                     KIND
                            DATE
                                                            DATE
     _____ ____
                            _____
                                           _____
PΙ
     WO 9821199
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                            19980522
                                          WO 1997-EP6243
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             KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
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         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
             GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
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                      A2 19990915
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                                                            19971110
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                            19991201
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                      Α
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PRAI CH 1996-2797
                            19961112
                      Α
    WO 1997-EP6243
                      W
                            19971110
    MARPAT 129:27898
OS
    Title compds. I (in which A = N, N:O; R = H, Cl, CH3, etc.; R1 = H, F, Cl,
AB
     CHO, NO2, etc.; R2 = H, CH3, OCH3, OCH2CCH, etc.; R3 = H, CH3, alkyl, etc.
     R4 = OCF3, CF3, CN, SOCH3, COOH, etc.; R5 = C1, Br, CHO, etc.) as well as
     agrochem. tolerated salts and stereoisomers of these compds. are prepd.
     through carboxylation, rearrangement, esterification, etc. The
     formulation examples of emulsion, wettable powders, and granules of these
     compds. as herbicidal substances were described.
IT
     207994-44-3P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of pyridylpyrazoles as herbicides)
RN
     207994-44-3 CAPLUS
CN
     2-Propyn-1-ol, 3-[3-chloro-6-[4-chloro-5-(difluoromethoxy)-1-methyl-1H-
```

pyrazol-3-yl]-5-fluoro-2-pyridinyl]- (9CI) (CA INDEX NAME)

Me N C1
$$C = C - CH_2 - OH$$

```
chain bonds :
   1-2 1-5 2-3 5-15
exact/norm bonds :
   1-2 1-5 5-15
exact bonds :
   2-3
G1:0,S
G2:[*1],[*2],[*3]
Match level :
   1:Atom 2:CLASS 3:CLASS 5:CLASS 6:Atom 7:Atom 8:Atom 15:CLASS
Generic attributes :
   1:
   Saturation
                          : Unsaturated
   Number of Carbon Atoms : less than 7
   Number of Hetero Atoms : less than 2
   Type of Ring System : Monocyclic
   6:
   Saturation
                          : Unsaturated
   Number of Carbon Atoms : less than 7
   Type of Ring System : Monocyclic
   7:
   Saturation
                          : Unsaturated
   Number of Carbon Atoms : less than 7
   Number of Hetero Atoms : less than 2
   Type of Ring System : Monocyclic
```

chain nodes :

1 2 3 5 6 7 8 15

Saturation

: Unsaturated

Element Count :
Node 1: Limited
C, C5
N, N1
0,00
S S0

Node 6: Limited

N,N1 C,C1-5 S,S0 O,O0

Node 7: Limited

C,C4 S,S1 O,O0 N,N0

,

=>

Uploading 10087066.str

STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

cb 3

Hy 1

Hy 2

G1 0,S

G2 [@1],[@2],[@3]

Structure attributes must be viewed using STN Express query preparation.

=> s 11 sss sam

SAMPLE SEARCH INITIATED 17:04:52 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 16494 TO ITERATE

1000 ITERATIONS 6.1% PROCESSED

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS:

322203 TO 337557

PROJECTED ANSWERS:

0 TO

L2 0 SEA SSS SAM L1

=> s ll sss ful

FULL SEARCH INITIATED 17:06:06 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 332308 TO ITERATE

100.0% PROCESSED 332308 ITERATIONS

SEARCH TIME: 00.00.05

902 ANSWERS

0 ANSWERS

L3 902 SEA SSS FUL L1

=> s 13

L4 224 L3

=> s herbicid? or agric? or agronom?

76646 HERBICID?

54068 AGRIC?

4401 AGRONOM?

L5 131645 HERBICID? OR AGRIC? OR AGRONOM?

=> s 14 and 15

L6 11 L4 AND L5

=> d 16 1-11 bib, ab, hitstr

L6 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 2002:693101 CAPLUS

DN 137:212312

TI Herbicidal 2-alkynyl-pyri(mi)dines

IN Maier, Thomas

PA BASF Aktiengesellschaft, Germany

SO Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

		_																
	PATENT NO. KIND					ND	DATE			APPLICATION NO					. DATE			
		- 								_								
PI	EP 1238586			A.	1	2002	0911		EP 2002-3518				20020215					
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
	JP	2002	23220	06	A2	2	2002	0021108 JP 2002-5938 0010309 Pnov.					9386	20020305				
PRAI	US	2001	-274	755P	P		2001	0309	4	- () al							
00	3471	D 7 M	127.	2122	10				•	_		•						

OS MARPAT 137:212312

AB A method of combating undesired plant growth at a locus comprises application to the locus of an effective amt. of at least one compd. I (R1 = (un) substituted alkyl, alkenyl, alkynyl, alkoxy, alkoxyalkyl, alkoxyalkoxy, haloalkyl, haloalkoxy, cyano, nitro, SF5, etc.; R3 = H, formyl, (un) substituted alkyl, alkenyl, trihydrocarbylsilyl, aryl, (un) substituted 5- or 6-membered nitrogen-contg. heteroarom. group; A = (un) substituted aryl, (un) substituted 5- or 6-membered nitrogen-contg. heteroarom. group, or (un) substituted thienyl; Z = O, S or single bond; X = N or CR2 (R2 = H, or R2 = R1); m = 0, 1, or 2) and the agronomically acceptable salts or N-oxides thereof, or

herbicidal compns. contg. such compds. as active ingredients.

IT 457057-31-7 457057-33-9 457057-34-0 457057-35-1 457057-36-2 457057-37-3 457057-40-8

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(herbicide)

RN 457057-31-7 CAPLUS

CN Pyridine, 4-methyl-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-(phenylethynyl)- (9CI) (CA INDEX NAME)

$$F_3C$$

Me

N

N

N

C

C

C

C

Ph

RN 457057-33-9 CAPLUS

CN Pyridine, 2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-(phenylethynyl)- (9CI) (CA INDEX NAME)

$$_{\mathrm{F}_{3}\mathrm{C}}^{\mathrm{Me}}$$

RN 457057-34-0 CAPLUS

CN Pyridine, 4-methoxy-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-(phenylethynyl)- (9CI) (CA INDEX NAME)

RN 457057-35-1 CAPLUS

CN Pyridine, 4-methyl-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

RN 457057-36-2 CAPLUS

CN Pyridine, 4-methyl-2-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-6-[[4-(trifluoromethyl)phenyl]ethynyl]- (9CI) (CA INDEX NAME)

RN 457057-37-3 CAPLUS

CN Pyridine, 2-[(4-fluorophenyl)ethynyl]-4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

$$F_3C$$
 $C = C$
 F

RN 457057-40-8 CAPLUS

CN 2-Propynal, 3-[4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]-2-pyridinyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & \\ N & \\ N & \\ N & \\ \end{array}$$

IT 457057-38-4 457057-39-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(herbicide)

RN 457057-38-4 CAPLUS

CN Pyridine, 2-ethynyl-4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-

yl]oxy]- (9CI) (CA INDEX NAME)

RN 457057-39-5 CAPLUS

CN Pyridine, 2-(3,3-diethoxy-1-propynyl)-4-methyl-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

IT 457057-41-9P

RN 457057-41-9 CAPLUS

CN Pyridine, 4-methyl-2-(4-methyl-3-penten-1-ynyl)-6-[[1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl]oxy]- (9CI) (CA INDEX NAME)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1998:650966 CAPLUS

DN 129:330725

TI Preparation of pyridylpyrazoles as microbicides for agriculture and gardening

IN Hagiwara, Kenji; Takada, Mitsumasa; Iihama, Teruyuki; Sano, Shinsuke; Shimoda, Susumu; Horikoshi, Yuji

PA Nippon Soda Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PΙ

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 10265471 A2 19981006 JP 1997-85878 19970319

OS MARPAT 129:330725

Title compds. I (X = H, halo, cyano, C1-6 (halo)alkyl, etc.; R = H, metal, C1-6 alkylcarbonyl, C1-6 alkylcarbonyloxymethyl, etc.; R substitutes N in pyrazole ring; Z = halo, cyano, C1-6 (halo)alkyl, C 2-6 alkenyl, etc.; m = 1-4) or their salts are prepd. and a part of them are prepd. by reaction of pyridylpyrazoles II [A = (R10)2CH; X1 = H, C1-6 alkyl; R1 = C1-6 alkyl; Z, m = same as I] with hydroxylamine and dehydration of II (A = HON:CH; X1, Z, m = same as above). 3-Diethoxymethyl-5-(3-chloro-2-pyridyl)pyrazole (prepn. given) was reacted with hydroxylamine hydrochloride in EtOH under reflux for 4 h to give 65% 3-hydroxylminomethyl-5-(3-chloro-2-pyridyl)pyrazole, which was dehydrated with Ac2O at 110.degree. for 4 h to give 77% 3-cyano-5-(3-chloro-2-pyridyl)pyrazole. The compd. showed good microbicidal activity on crops.

IT 215234-47-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyridylpyrazoles by imination of alkoxymethylpyridylpyrazoles and dehydration)

RN 215234-47-2 CAPLUS

CN 1H-Pyrazole-3-carbonitrile, 5-(3-ethynyl-2-pyridinyl)- (9CI) (CA INDEX NAME)

10/087,066

L6 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1995:380295 CAPLUS

DN 122:160668

TI Preparation of picolinic acid derivatives as herbicides

IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa, Shigehiko; Yoshida, Ryo

PA Kumiai Chemical Industry Co, Japan; Ihara Chemical Ind Co

SO Jpn. Kokai Tokkyo Koho, 34 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN CNT 1

PAN.	CNT I						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI	JP 06316574	A2	19941115	JP 1991-302644	19911023		
	TP 2779720	B2	19980723				

OS CASREACT 122:160668; MARPAT 122:160668

AB Title compds. I [R1 = H, alkyl, alkenyl, alkynyl, benzyl, haloalkyl, cyanoalkyl, etc.; R2 = H, alkyl, alkoxy, halo, haloalkoxy, alkylsulfonyl, R; X = (un)substituted amino, etc.; Y = O, S, (un)substituted imino; n = 0, 1] are prepd. Thus, Me 6-(dimethylamino)-3-hydroxypicolinate was treated with 4,6-dimethoxy-2-(methylsulfonyl)pyrimidine in DMF contg. K2CO3 was heated at 90.degree. for 2 h to give 66% the title compd. I [X = 6-dimethylamino, Y = O, R = Me, R1 = R2 = MeO, n = 0]. This at 100 g/10 are effected 100% kill against Cyperus difformis.

IT 143941-12-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of picolinic acid derivs. as herbicides)

RN 143941-12-2 CAPLUS

CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)

$$Me_3si-c \equiv c$$
 N
 $C-OMe$
 N
 OMe
 OMe

Some on #6

L6 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 1994:8609 CAPLUS

DN 120:8609

TI Preparation of (pyrimidinyloxy)picolinic acid analogs as herbicides

IN Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa, Shigehiko; Hanai, Ryo

PA Kumiai Chemical Industry Co., Ltd., Japan; Ihara Chemical Industry Co., Ltd.

SO PCT Int. Appl., 49 pp. CODEN: PIXXD2

CODEN

DT Patent

LA Japanese

FAN.CNT 1

	PATEN	T NO.		KIND	DATE		API	PLICATION NO.	DATE	
PI	WO 93	12109		A1	19930624	-	WO	1991-JP1725	19911218	
	W	: BR,	HU,	PL, RO	, SU					
	HU 64	321		A2	19931228		HU	1992-1294	19911218	
	HU 21	.3623		В	19970828					
	BR 91	06704		Α	19940322		BR	1991-6704	19911218	
	RO 10	9848		B1	19950630		RO	1927-92205	19911218	
	RO 10	9848		В1	19950630		RO	1992-527	19911218	
	PL 16	9374		B1	19960731		\mathtt{PL}	1991-295868	19911218	
	RU 20	91380		CI	19970927		RU	1991-5011967	19911218	
PRAI	WO 19	91-JP17	725	Α	19911218					

OS MARPAT 120:8609

AB Title compds. I [R = H, alkyl, alkenyl, benzyl, haloalkyl, etc.; R1, R2 = alkyl, alkoxy, halo, haloalkoxy, alkylsulfonyl; X = (un)substituted amino, phenoxy, haloalkyl, alkoxy, etc.; Y = O, S, (un)substituted amino; n = 0, 1] are prepd. E.g., a mixt. of Me 6-(dimethylamino)-3-hydroxypicolinate (prepn. given), 4,6-dimethoxy-2-methylsulfonylpyrimidine, and K2CO3 in DMF was heated at 90.degree. for 2 h to give 66% I [R = Me, R1 = R2 = MeO, X = 6-Me2N, Y = O, n = 0], which at 100 g/ha effect .gtoreq.95% kill against Monochoria vaginalis. Many formulations contg. I are described.

IT 143941-12-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as herbicide)

RN 143941-12-2 CAPLUS

CN 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-[(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)

- ANSWER 9 OF 11 CAPLUS COPYRIGHT 2002 ACS L6
- 1993:6984 CAPLUS AN
- 118:6984 DN
- ΤI Preparation of (pyrimidinyloxy- and -thio)picolinic acid derivatives as herbicides
- Takabe, Fumiaki; Saito, Yoshihiro; Tamaru, Masatoshi; Tachikawa, IN Shigehiko; Hanai, Ryo
- Kumiai Chemical Industry Co., Ltd., Japan; Ihara Chemical Industry Co., PA
- PCT Int. Appl., 47 pp. SO CODEN: PIXXD2
- DT Patent
- Japanese LΑ

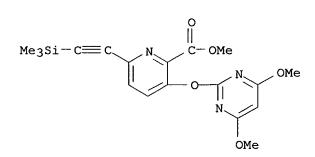
FAN.CNT 4

11111	PATENT NO.						DATE			AI	PLI	DATE				
ΡI	WO 9207846				 A:	 1	19920514			W	19:	 9	19911025			
		W:	AU,	CA,	US											
		RW:	ΑT,	ΒE,	CH,	DE,	, DK,	ES,	FR,	GB,	GR,	IT,	LU,	NL	, SE	
	CA	2066	641		Αž	A	1992	0426		CA	A 19	91-2	0666	41	1991	1025
	ΑU	9187	473		A.	1	1992	0526		JΑ	J 19	91-8	7473		1991	1025
	ΑU	6402	83		B	2	1993	0819								
	ΕP	5079	62		A.	1	1992	1014		EI	19	91-9	1891	0	1991	1025
	ΕP	5079	62		B:	1	2001	0613								
		R:	DE,	FR,	GB	~-										
PRAI	JP	1990-	-2883	180	Α		1990	1025								
	LIO.	1001	. TD1	150	71		1001	1025								

- WO 1991-JP1459
- Α 19911025 OS MARPAT 118:6984 AB
- The title compds. [I; R = H, alkyl, etc.; R1, R2 = alkyl, alkoxy, etc.; Y = 0, S, etc.; X = cyano, PhO, etc.; n = 0, 1] are prepd. A mixt. of picolinate II, sulfone III, and K2CO3 in DMF was heated 2 h at 90.degree. to give 66% I (R = Me, R1 = R2 = MeO, X = 6-Me2N, Y = O, n = 0), which killed >90% barnyard grass, Monochoria vaginalis, and Scirpus juncoides.
- IT143941-12-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as herbicide)

- RN 143941-12-2 CAPLUS
- 2-Pyridinecarboxylic acid, 3-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-6-CN [(trimethylsilyl)ethynyl]-, methyl ester (9CI) (CA INDEX NAME)



Same on #6

- L6 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS
- AN 1992:128680 CAPLUS
- DN 116:128680
- TI Preparation of 2,6-diarylpyridine derivatives as herbicides
- IN Yanagi, Akihiko; Heinemann, Ulrich; Babczinski, Peter; Luerssen, Klaus; Santel, Hans Joachim; Schmidt, Robert R.
- PA Bayer A.-G., Germany
- SO Eur. Pat. Appl., 50 pp.

CODEN: EPXXDW

DT Patent

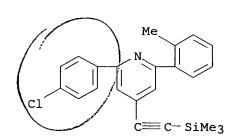
LA German

FAN.CNT 1

	PATENT NO.			KII	ND	DATE			AP	PLICATIO	N NO.	DATE	
ΡI	EP	 4634	92		 A	 1	1992	0102		EP	 1991-10	9714	19910613
				CH,		_			IT,	LI, I		3,11	13310013
	DE	4020	257		A.	1	1992	0102		DE	1990-40	20257	19900626
	JΡ	0423	0259		A2	2	1992	0819		JP	1991-17	4682	19910620
PRAI	DE	1990	-402	0257			1990	0626					

OS MARPAT 116:128680

- AB Diarylpyridines I [R1, R2 = H, halo, alkyl, alkoxy, haloalkyl; R3 = H, halo, cyano, alkyl, alkoxy, haloalkyl; R4, R5 = H, alkyl; Z = alkyl, alkenyl, alkynyl, alkoxy, alkenyloxy, alkylthio, halo, substituted amino, etc.; several specific exclusions] were prepd. as herbicides, desiccants, and defoliants (no data). Thus, 3-EtC6H4Ac was condensed with PhCOCH:C(SMe)2 (prepn. given) in THF contg. KOCMe3; the product was cyclized in situ by refluxing with NH4Ac and added AcOH to give I (R1 = 3-Et, Z = SMe, other R = H). Over 100 I are listed with characterizing data.
- IT 139421-28-6P 139421-29-7P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as herbicide)
- RN 139421-28-6 CAPLUS
- CN Pyridine, 2-(4-chlorophenyl)-6-(2-methylphenyl)-4[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)



(CA INDEX NAME)

The claimed can write midine 2- and on the midine.

- RN 139421-29-7 CAPLUS
- CN Pyridine, 2-(4-chlorophenyl)-4-ethynyl-6-(2-methylphenyl)- (9CI) (CA INDEX NAME)

Page 25

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ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS
L6
     1990:35858 CAPLUS
ΑN
DN
     112:35858
     Preparation of 2-(2-imidazolin-2-yl)nicotinates as herbicides
TΤ
     Doehner, Robert Francis; Ladner, David William; Finn, John Michael
IN
PΑ
    American Cyanamid Co., USA
SO
     Eur. Pat. Appl., 48 pp.
    CODEN: EPXXDW
DT
     Patent
     English
LA
FAN.CNT 2
                    KIND DATE
                                         APPLICATION NO. DATE
     PATENT NO.
                     A2
                          19890705
PΙ
    EP 322616
                                           EP 1988-120594 19881209
    EP 322616
                     A3 19891018
         R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE
                 A1 19940530
    IL 104751
                                           IL 1988-104751
                                                             19881212
                     A1
                                           IL 1988-104752
                                                             19881212
    IL 104752
                            19940530
                          19900105
     JP 02000779
                     A2
                                           JP 1988-329496
                                                             19881228
                     Α
                           19890829
                                           BR 1988-6959
    BR 8806959
                                                             19881229
                  A 19891025
A1 19951024
A 19890701
A1 19890706
B2 19910718
A2 19891030
B 19920728
B1 19970415
A1 19910808
A 19940802
                     Α
    ZA 8809728
                            19891025
                                           ZA 1988-9728
                                                             19881229
    CA 1337423
                                           CA 1988-587213
                                                             19881229
    DK 8807331
                                           DK 1988-7331
                                                             19881230
                                           AU 1988-27583
                                                             19881230
    AU 8827583
    AU 612750
                                           HU 1988-6681
                                                             19881230
    HU 49457
    HU 205832
    KR 9705304
                                           KR 1988-18228
                                                             19881230
    AU 9177208
                                           AU 1991-77208
                                                             19910521
                                           US 1992-855259
                                                             19920323
    US 5334576
                     A 19940802
    DK 9301041 A 19930917
DK 9301042 A 19930917
                                           DK 1993-1041
                                                             19930917
                     A 19930917
                                           DK 1993-1042
                                                             19930917
PRAI US 1987-139996 A 19871231
    US 1986-889999 B2 19860728
                     A3 19881212
     IL 1988-88663
    US 1989-397699
                      B1 19890823
    The title compds. [I and II; R1 = C1-4 alkyl; R2 = C1-4 alkyl, C3-6
     cycloalkyl; R1R2 = atoms to complete a (Me-substituted) C3-6 cycloalkyl
     ring; R3 = H, (substituted) C1-2 alkyl, C3-12 alkenyl, C3-6 cycloalkyl,
     C3-16 alkynyl, cation; R4 = C1-11 alkyl, ClCH2, (substituted) Ph; R5 =
    C1-4 alkyl, (Me-substituted) Ph; A = CO2R3, CHO, CH2OH, COMe, COPh, CN,
    Me, CH:NOH, CONHOH, 2-oxazolidinyl, etc.; B = H, COR4, SO2R5; W = O, S; Y,
     Z = H, Me, (hydroxy-substituted) C2-6 alkynyl, (substituted) C3-6
     cycloalkyl, C1-4 alkyl, alkenyloxy, etc.] useful as herbicides,
    were prepd. Thus, Me 5-bromo-2-imidazolin-2-yl) nicotinate,
    HC.tplbond.CC(OH)Me2, (Ph3P)2PdCl2, Ph3P, and CuCl were refluxed 72 h in
     Et3N to give alkynylpyridylimidazolone III. Several I at 0.5 kg/ha
    preemergent gave complete control of quackgrass, barnyardgrass, foxtail,
    velvetleaf, etc.
IT
    124523-14-4P 124523-15-5P 124523-64-4P
     124523-65-5P
     RL: AGR (Agricultural use); BAC (Biological activity or effector, except
     adverse); BSU (Biological study, unclassified); SPN (Synthetic
```

(prepn. of, as herbicide)
RN 124523-14-4 CAPLUS
CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methyle)]

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(3-hydroxy-3-methyl-1-butynyl)-, methyl ester (9CI)

preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(CA INDEX NAME)

$$\begin{array}{c|c}
O \\
MeO-C \\
Me & H \\
N & N
\end{array}$$

$$C = C-C-Me \\
Me$$

RN 124523-15-5 CAPLUS

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-ethynyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c}
\text{HO}_2\text{C} \\
\text{Me} \\
\text{N} \\
\text{N}
\end{array}$$

RN 124523-64-4 CAPLUS

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(3-hydroxy-3-methyl-1-butynyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{Me} \\ & \text{HO}_2C & \text{C} & \text{C} - \text{C} - \text{Me} \\ & \text{OH} & \text{OH} \\ & & \text{OH} & \text{OH} \\ \end{array}$$

RN 124523-65-5 CAPLUS

CN 3-Pyridinecarboxylic acid, 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(1-propynyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & \text{HO}_2C \\
 & \text{Me} \\
 & \text{N} \\
 & \text{N} \\
 & \text{N}
\end{array}$$